ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov

Janice K. Brewer
Governor

Benjamin H. Grumbles
Director

Notice of Proprietary Treatment Product Listing
Pursuant to Arizona Administrative Code R18-9-A309(E)

ADEQ File No. 20070742

1. Proprietary Treatment Product Name, Model, and Description

Product Name: AdvanTex® Treatment System
Model: AX20 Mode 1 and AX20 Mode 3
Description: The AdvanTex® Treatment System consists of a watertight, two compartment processing tank or separate septic and recirculating tanks; engineered textile media filter module; recirculation pump and splitter valve; and related appurtenances described in Section 4 herein.
Product Name: AdvanTex® Treatment System

2. Manufacturer Information

Name: Orenco Systems Inc.
Address: 814 Airway Ave
City/State/Zip: Sutherlin, OR.97479
Phone: 1-800-348-9843
Fax: 541-459-2884
Website: www.orenco.com

3. Recognized Treatment Performance

Parameter	Averaging Time	Parameter Value for Averaging Time
5-Day Biochemical Oxygen Demand (BOD_5), mg/l	30-day arithmetic mean	15
Total Suspended Solids (TSS), mg/l	30-day arithmetic mean	15
Total nitrogen as nitrogen (TN), mg/l	five-month arithmetic mean	30[1]
Total nitrogen as nitrogen (TN), mg/l	five-month arithmetic mean	15[2]
Total coliform, colony forming units/100ml	95th percentile	100,000

NOTES:

[1] AX20 Mode 1.

[2] AX20 Mode 3, based on the five-month arithmetic mean of total nitrogen in raw wastewater (influent) not exceeding 53 mg/L. Total N value of 15 mg/l is recognized treatment performance by this Notice of Proprietary Treatment Product Listing, thereby satisfying the data submittal requirement of A.A.C. R18-9-E312(C)(4).

4. Product Applicability and Limitations for Use for a Recognized General Permit Technology

Applicability: This listing is for only the AdvanTex®-AX20 Mode 1 and AX20 Mode 3 Treatment Systems product line for the treatment technology specified in A.A.C. R18-9-E312(A)(2).

Limitations:

A. The product is for residential use and subject to A.A.C. R18-9-A312(F)(2) through (4).

B. The AdvanTex® AX20 treatment system shall conform to the following:

Maximum Treatment System Design Flow (gallons per day) (see NOTE B.1)	Number of AX20 Filter Modules	Processing Tank with Primary and Secondary Compartments			Treatment Product Appurtenances (See Note B.2)
		Tank Specification	Minimum Operational Liquid Capacity (gallons)	Minimum Storage Capacity Above High Operating Level (gallons) (see NOTE B.2)	
600	1	Commercial AdvanTex® General Specifications, total of 17 pages, dated December 2008			Orenco Systems® Incorporated Standard Packages, AdvanTex® - AX20 Treatment System, total of 2 pages, dated December 2004
>600 to 1200	2				
>1200 to 1800	3		1500	Orenco Systems® Incorporated AdvanTex® Design Criteria, Reserve Volume, pages 5 and 6, dated December 2007.	
>1800 to 2400	4		3000		
>2400 to 3150 (see Note B.4)	5		4500		
			6000		
			7500		

NOTES:

B.1 – A.A.C. R18-9-A314(4)(a)(i)

B.2 – A.A.C. R18-9-A312(B)(4)(e)(i)

B.3 – Appurtenances for this Treatment Product Listing INCLUDE the Biotube assembly, recirculation pump, recirculation splitter valve, and interconnecting piping. This listing EXCLUDES appurtenances which are considered to be "other manufactured materials and components" such as an alarm, control panel, control, switch, timer, wiring, other electrical devices, and installation components; which are subject to both the manufacturer specifications and any more restrictive requirement in 18 A.A.C. 9, Article 3.

B.4 – A.A.C. R18-9-E323 applies for treatment system Design Flow of 3,000 gpd and larger.

C. Nominal hydraulic application rate is not more than 35.0 gpd/ft^2 of textile filter inlet surface at the rated daily design flow.

D. Nominal recirculation ratio for the system is 4:1.

E. Treated wastewater from the listed product shall be delivered to a disposal works which conforms to R18-9-A312(C) through (F), R18-9-A313, and the applicable criteria in 18 A.A.C, Article 3, Part E for the selected disposal technology.

5. Alternative Criteria and Exceptions for Use Under the Recognized General Permit Technology

Alternative:	None
Exception:	When the wastewater source is other than a single family dwelling, the Notice of Intent to Discharge Pursuant to A.A.C. R18-9-A309(B) shall include the Manufacturer's Design Review Report to confirm recognized treatment performance, surge analysis to demonstrate satisfaction of A.A.C. R18-9-A312(B)(4)(e), specify component capacities, control settings, and supplemental installation and operational practices.

6. Documents Used as the Basis for this Proprietary Treatment Product Listing Notice

Application for Treatment Product Listing:	Dated 10-8-2007, total of 2 pages plus attachments **(NOTE 1)**.
Product data:	AdvanTex® -AX20 Filter Data Sheet, 1 page, dated September 2008 **(NOTE 1)**.
System components: Listing is subject to EXCLUSIONS in Section 4.B on page 2 of 4.	Standard Packages, AdvanTex® -AX20 Treatment System, total of 2 pages, dated December 2008 **(NOTE 1)**.
Manufacturer's Design Criteria	Dated August 2008, total of 6 pages **(NOTE 1)**.
Manufacturer's Installation Guides:	Dated February 2007, total of 29 pages **(NOTE 1)**.
Manufacturer's Operation and Maintenance Manual, Part 1:	Dated February 2008, total of 28 pages **(NOTE 1)**.
Manufacturer's Operation and Maintenance Manual Part 2:	Dated May 2008, total of 20 pages **(NOTE 1)**.
Manufacturer's Warrantee:	Dated October, 2005, 1 page **(NOTE 1)**.
Homeowner's Manual:	Dated September, 2007, total of 6 pages **(NOTE 1)**.
Third party test data accepted for recognized treatment performance:	Default treatment performance values are recognized in Section 3 on page 1 of this Notice based on A.A.C. R18-9-E312(B) for BOD_5, TSS, and Total Coliform. Default treatment is recognized for TN in Section 3 of this Notice for the AX20 Mode 1. Superior treatment is recognized for TN in Section 3 on page 1 of this Notice for the AX20 Mode 3 is based on NSF-40 testing accepted by ADEQ
NOTE 1 – Document is an integral part of this Proprietary Treatment Product Listing Notice and is included in the Arizona Department of Environmental Quality website at: http://azdeq.gov/engineeringreview/product.html	

7. Terms and Conditions for this Proprietary Treatment Product Listing Notice

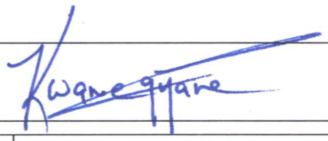
A. This Notice of Proprietary Treatment Product Listing shall remain in effect until any of the following occurs:
   i. Applicable provisions of the Arizona Administrative Code, Title 18, Chapter 9, Article 3 are revised;
   ii. Documents used for the basis of this listing are altered or modified;
   iii. Manufacturer claims which are relied upon for this listing are later determined to contain an error or omission;
   iv. The manufacturer requests termination of this listing;
   v. A listing error or omission is identified; or
   vi. The manufacturer and ADEQ mutually agree to reissue this notification to incorporate correction or update for any reason.

B. This Notice of Proprietary Treatment Product Listing does not apply when the:
   i. Listed proprietary treatment product is modified or operated in a manner that conflicts with Arizona law or the documents used for the basis of this listing action in Section 6.
   ii. Listed proprietary treatment products used in a manner that cannot achieve the performance in Section 3 above.

C. This Notice of Proprietary Treatment Product Listing applies solely to the product specified in Section 1 above.

D. The manufacturer is responsible for notifying the ADEQ of changes to contact information at the following address:
   Attention: Product Listing Supervisor
   Engineering Review Desk,
   1110 West Washington Street
   Phoenix, AZ 85007.

E. The listing by ADEQ of any proprietary product or service is not an endorsement by ADEQ or the State of Arizona. ADEQ does not endorse, represent, guarantee, warranty or defend the use of any product which is authorized for use pursuant to A.A.C. R18-9-A309(E). Product providers are a direct source unrelated to ADEQ or the State of Arizona. Use of any listed product is at the user's risk and the State assumes no liability.

Signature:		**Date Signed:**	7/27/09
Title:	Engineering Review Section Manager		

Note 1 Documentation Package for

Notice of Proprietary Treatment Product Listing Pursuant to Arizona Administrative Code R18-9-A309(E) Orenco Systems Inc., AdvanTex®- AX20 Mode 1 & Mode 3 Treatment System

A. Application for Treatment Product Listing: 2 pages

B. Product data: 1 page

C. System components: 2 pages

D. Manufacturer's Design Criteria: 6 pages

E. Manufacturer's Installation Guide: 32 pages

F. Manufacturer's Operation and Maintenance Manual, Part 1: 28 pages

G. Manufacturer's Operation and Maintenance Manual Part 2: 20 pages

H. Manufacturer's Warrantee: 1 page

I. Homeowner's Manual: 6 pages

J. Third Party Test Data Accepted for Superior Treatment Performance: Data are on file at the following address;
Arizona Department of Environmental Quality
Attention Records Center
1110 West Washington Street
Phoenix, AZ 85007.

ERP: 09-165
ADEQ File Number 20070742
Reviewer TF1/EKS